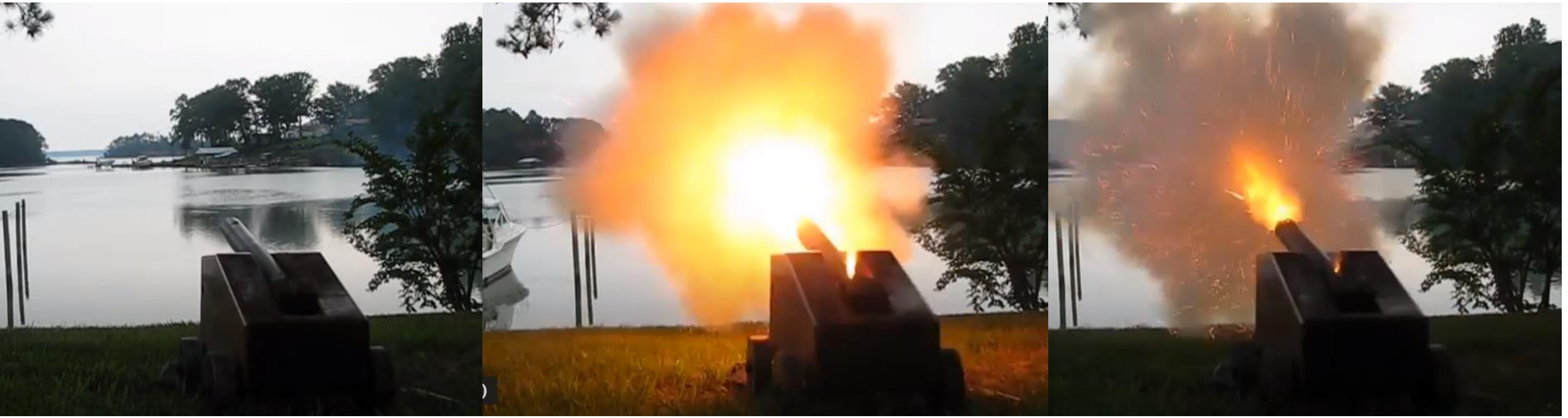
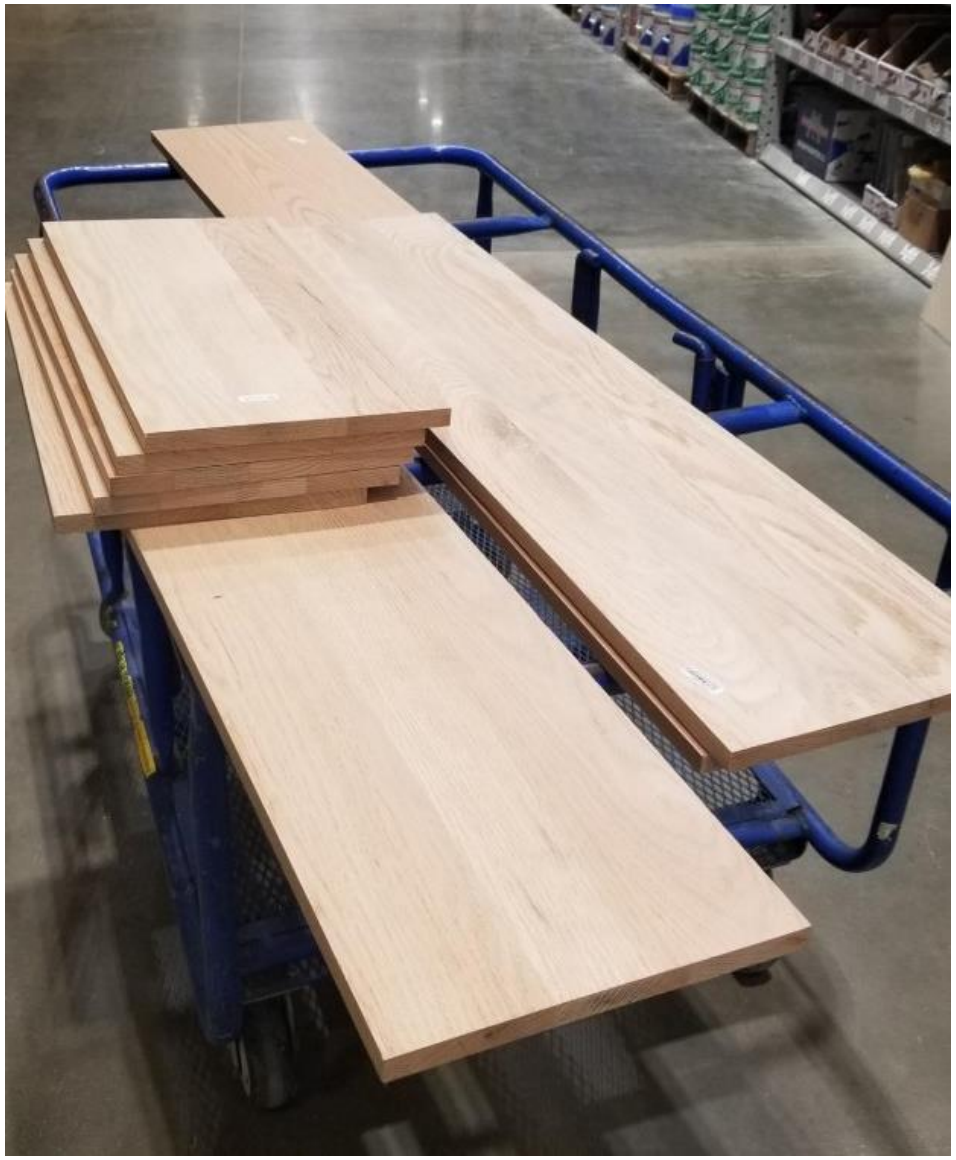
Almost 30 years ago we built a black powder tennis ball cannon for our Dad.
He loved it, and we shot it off every year during our 4th of July gather up. It worked great.
I remember thinking as I drove home one year, “I’m gonna build one for me someday.”
Well, I finally decided a few weekends ago to get to it. This was his in action:



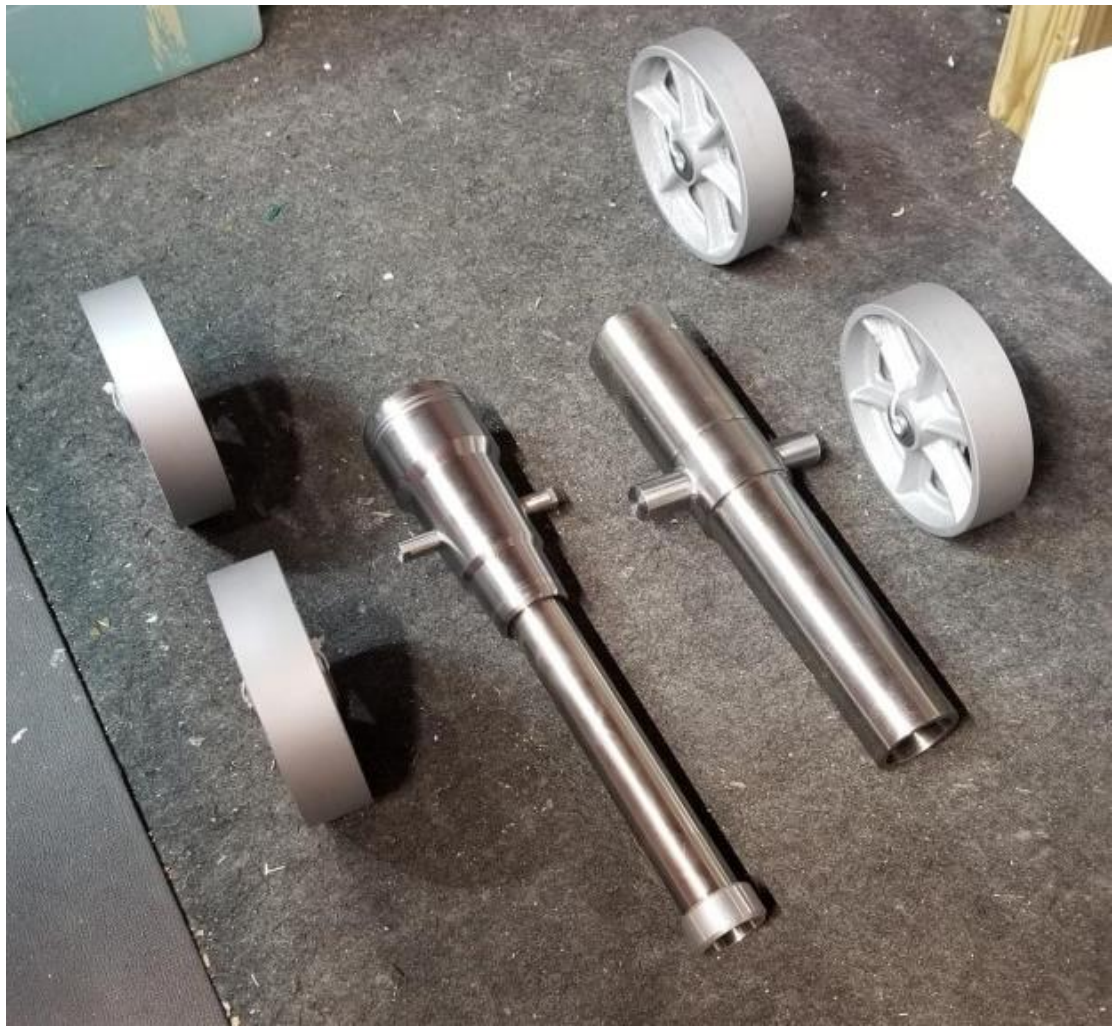
https://www.youtube.com/watch?v=kSJhMaCniwI

So I sat down and drew up a design that seemed about the right size and had some features I wanted:

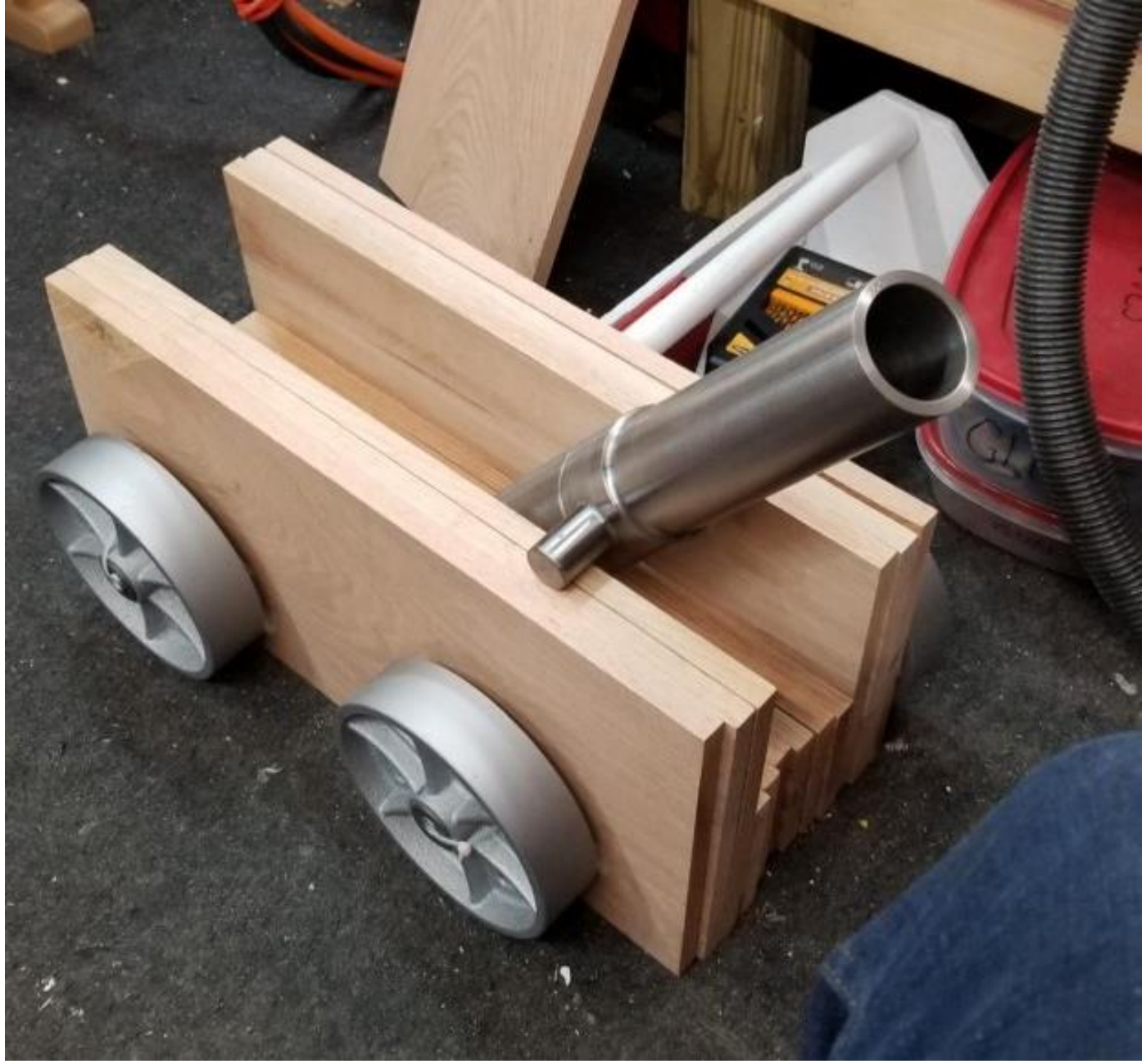
1) A solid pro-built barrel that could shoot a golf or billiard ball a mile (our tennis ball cannon range was ~400 yards.)
2) A curved carriage shape rather than just angles.
3) Spoked wheels (his were just aluminum discs we cut out).



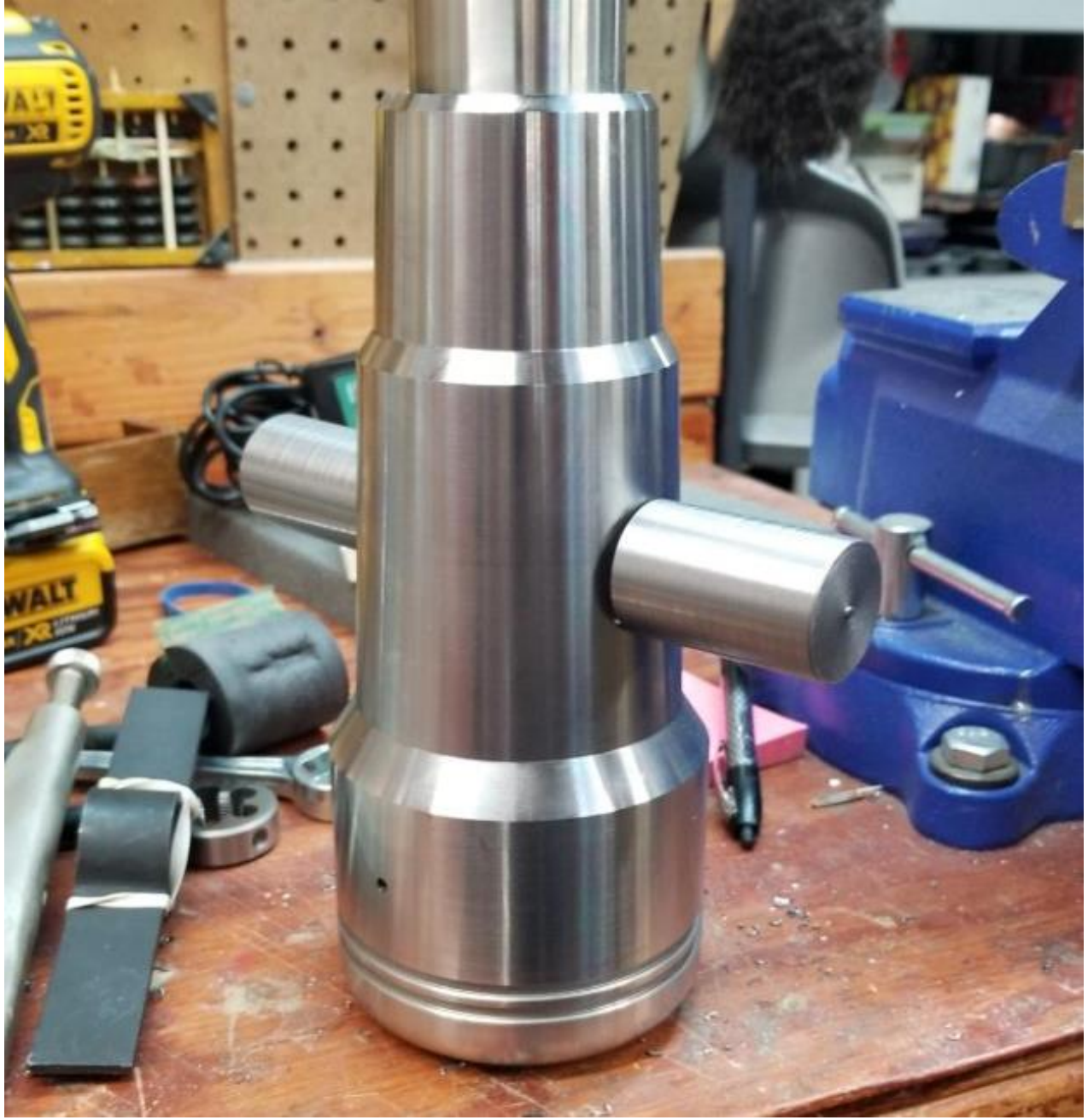
A bunch of oak from the lumber store



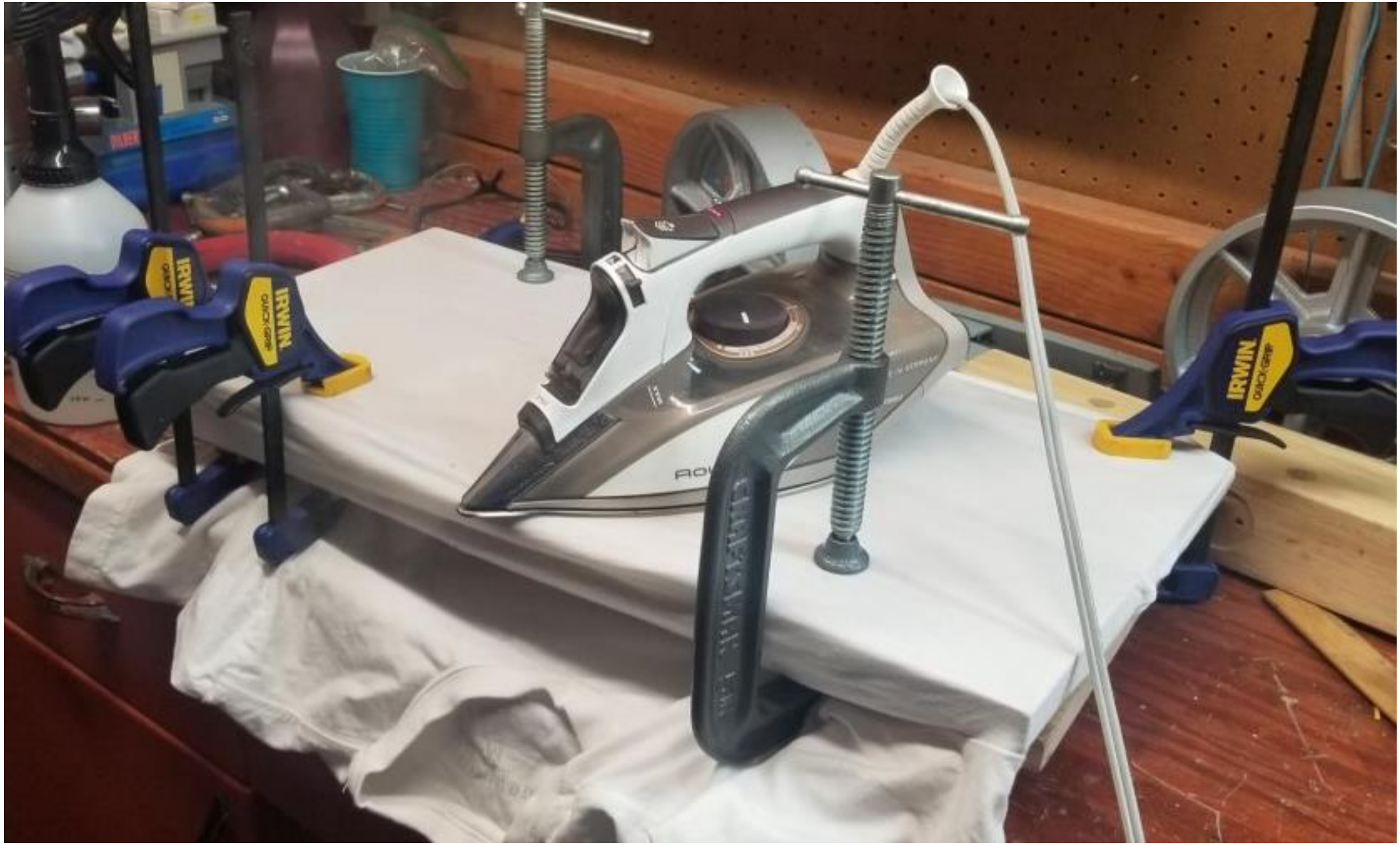
Barrels - American Cannon (golf ball) & Coaches Club (billiard ball).
Note mismatched trunnion size (5/8” screw-in vs 1 ¼” welded)
Guess we’ll be making some new ones for the American barrel….
Cast iron wheels & bearings from Zoro.



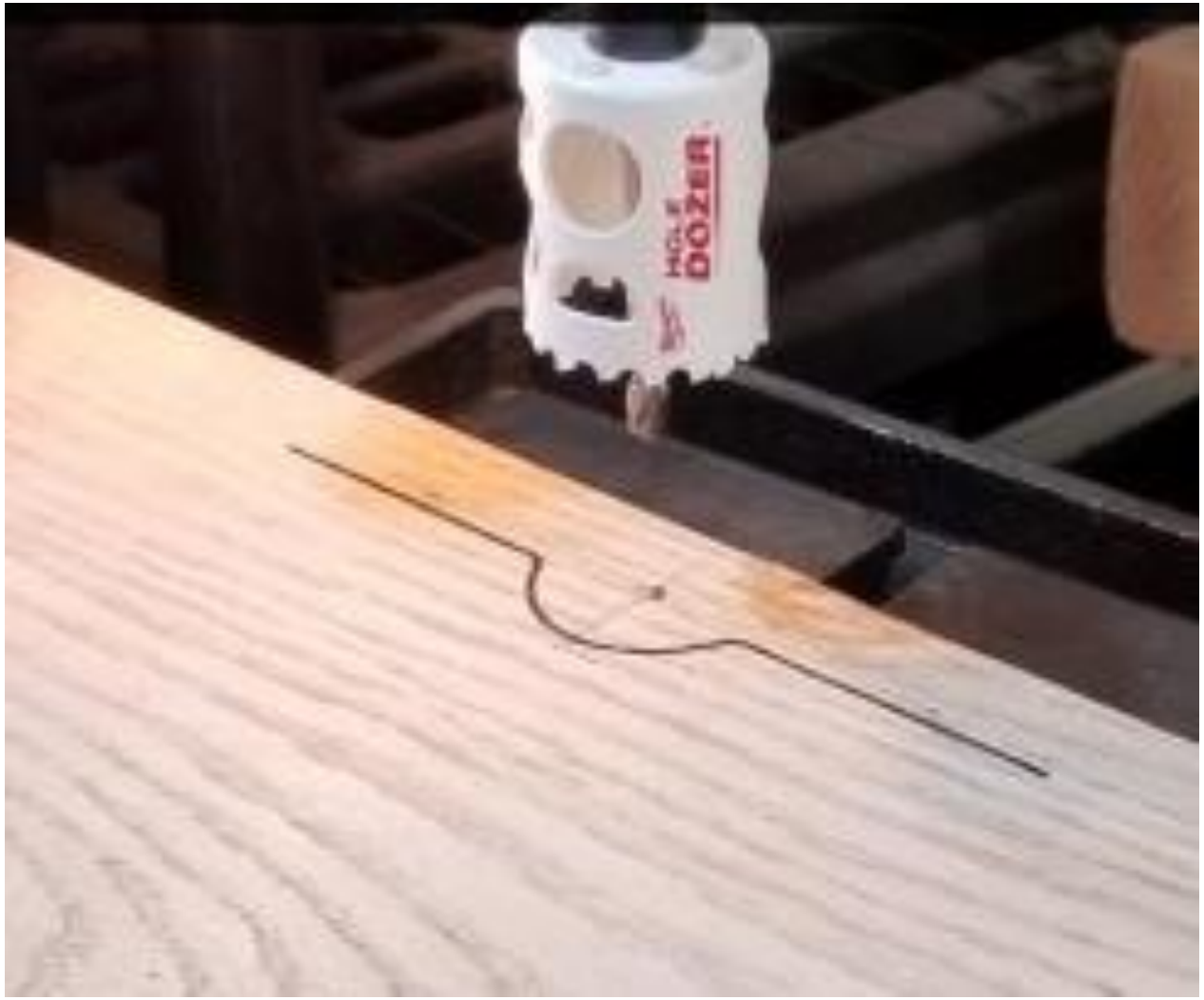
Quick! For inspiration, cut some boards and make it look like a cannon!
Who doesn’t do this?



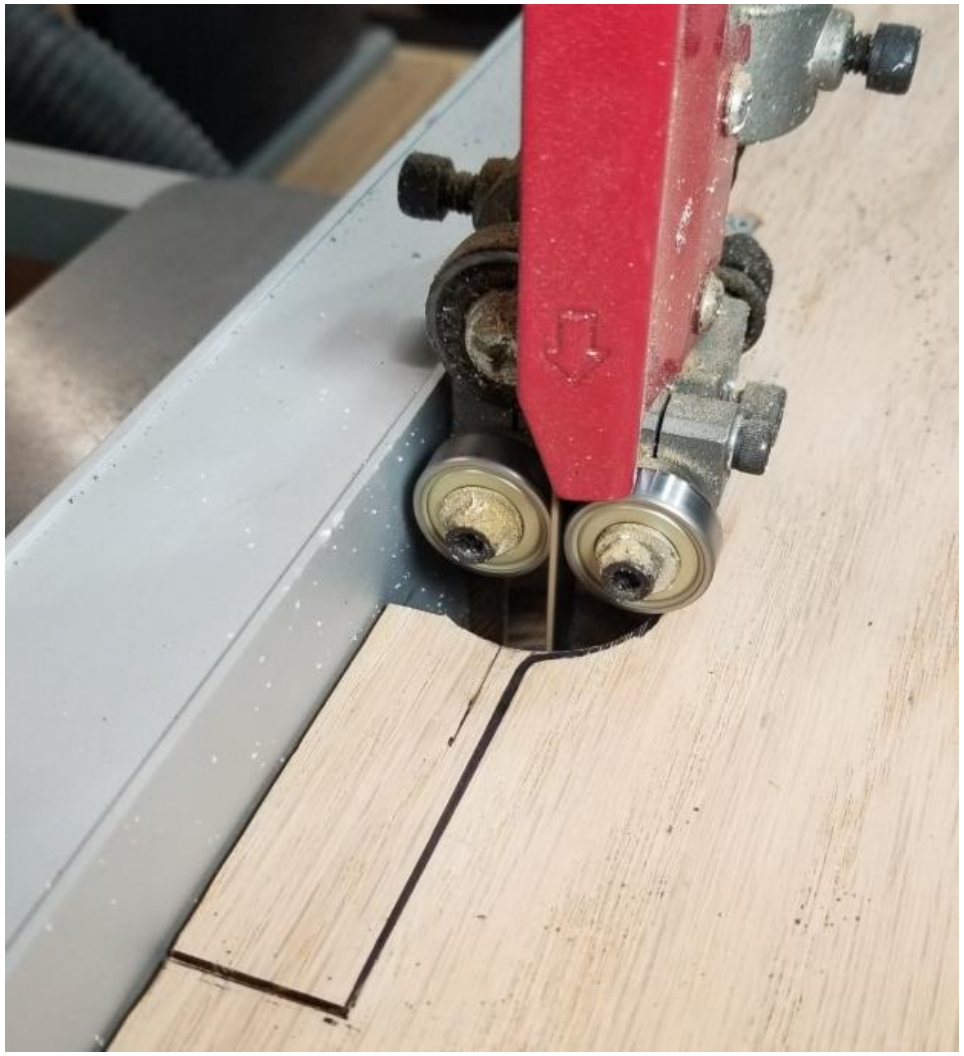
Machined matching 1¼” screw-in trunnions for American barrel.



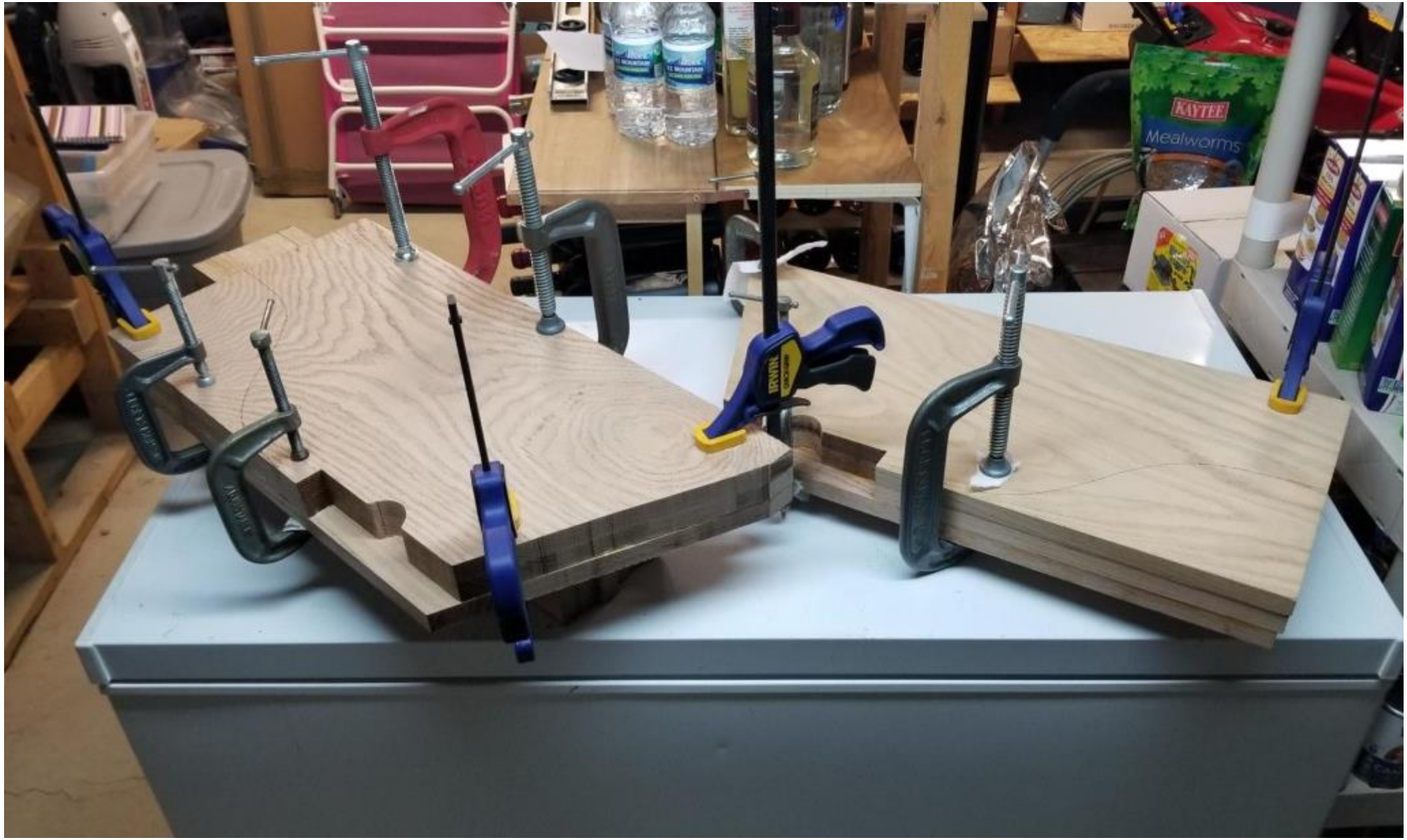
Flattening one of the boards (Found my careful selecting wasn’t 100% perfect)



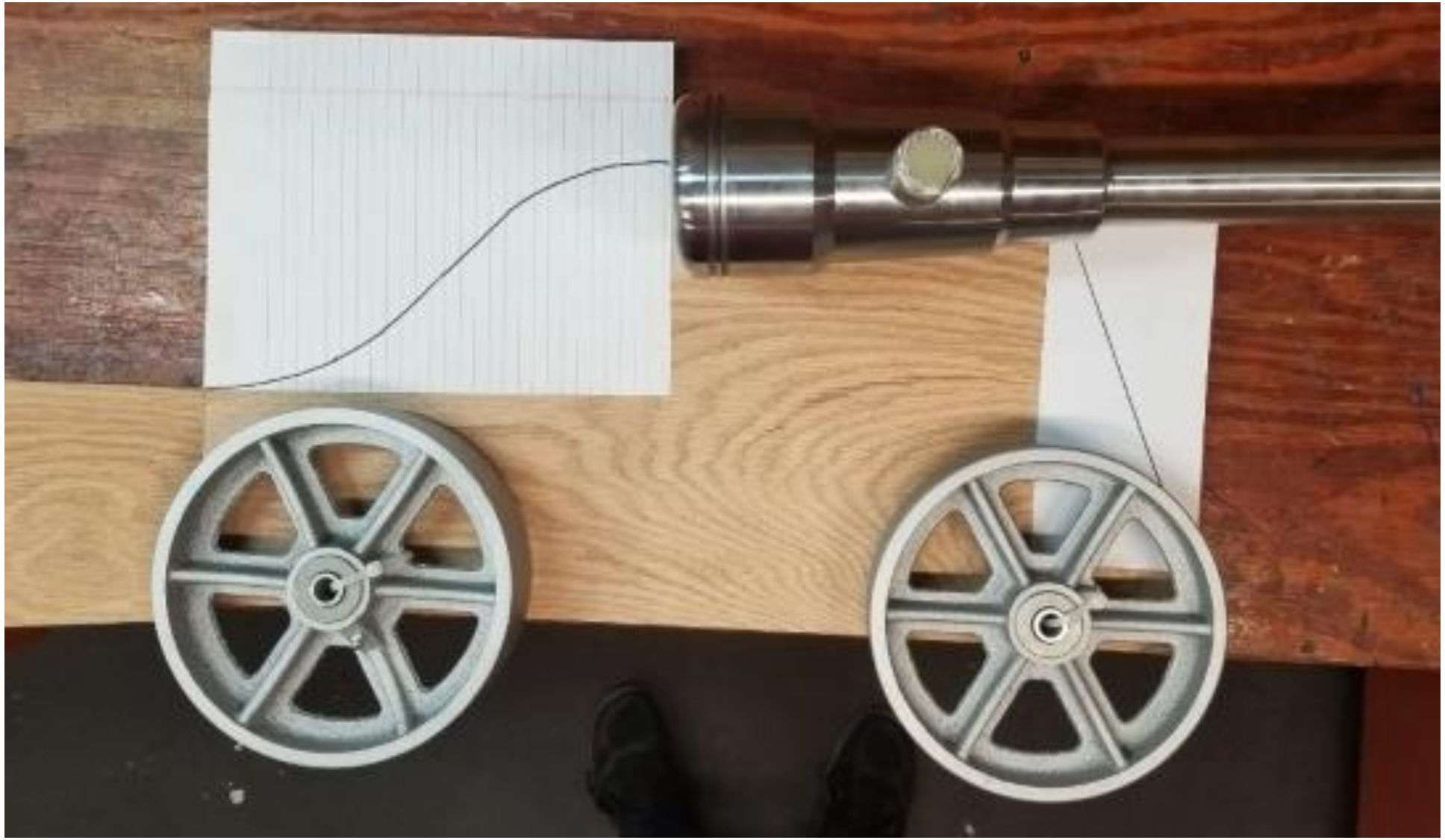
Drilling the trunnion slot



Cutout for trunnion caps

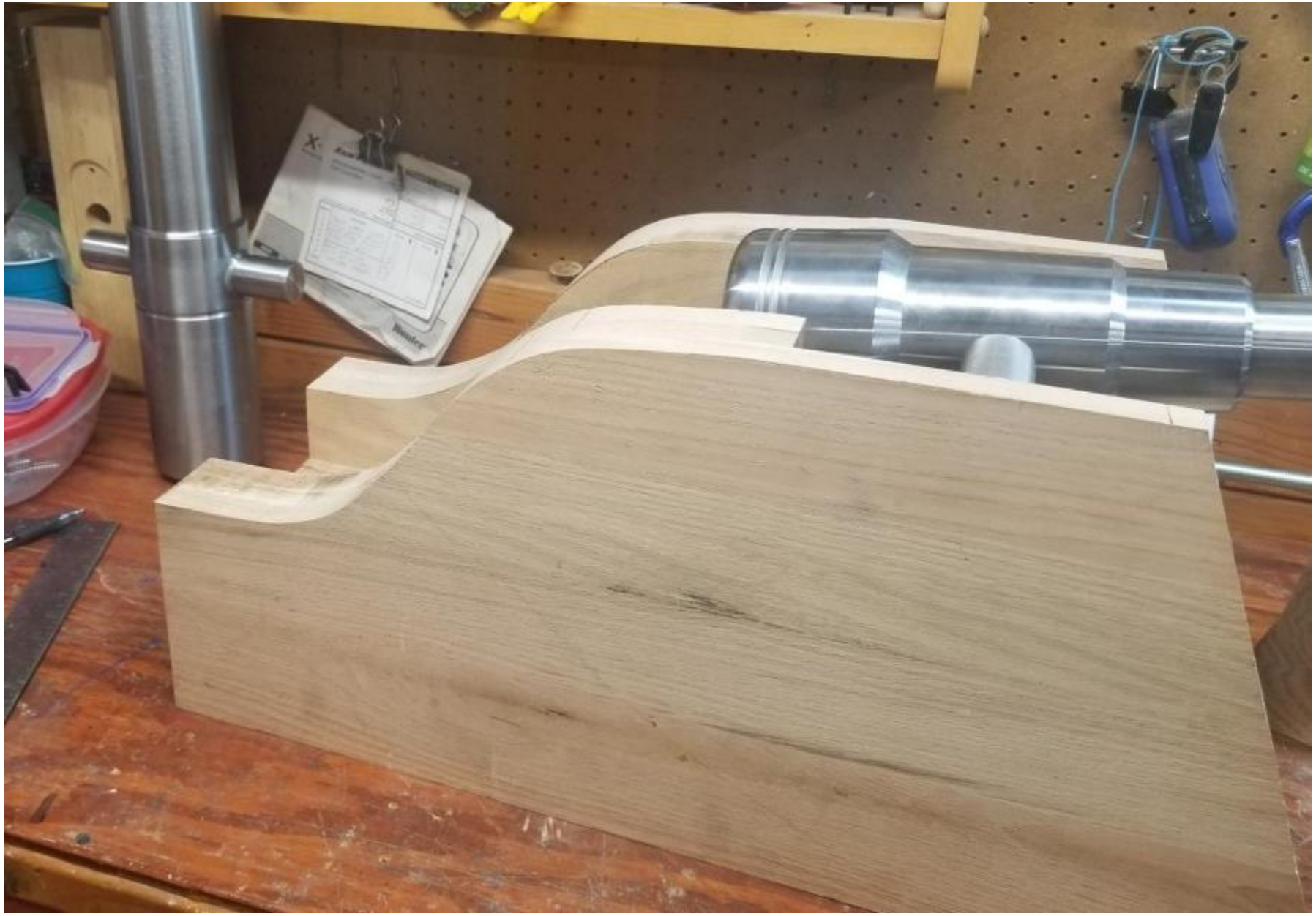


Gluing up the cannon sides after trunnion cutouts.

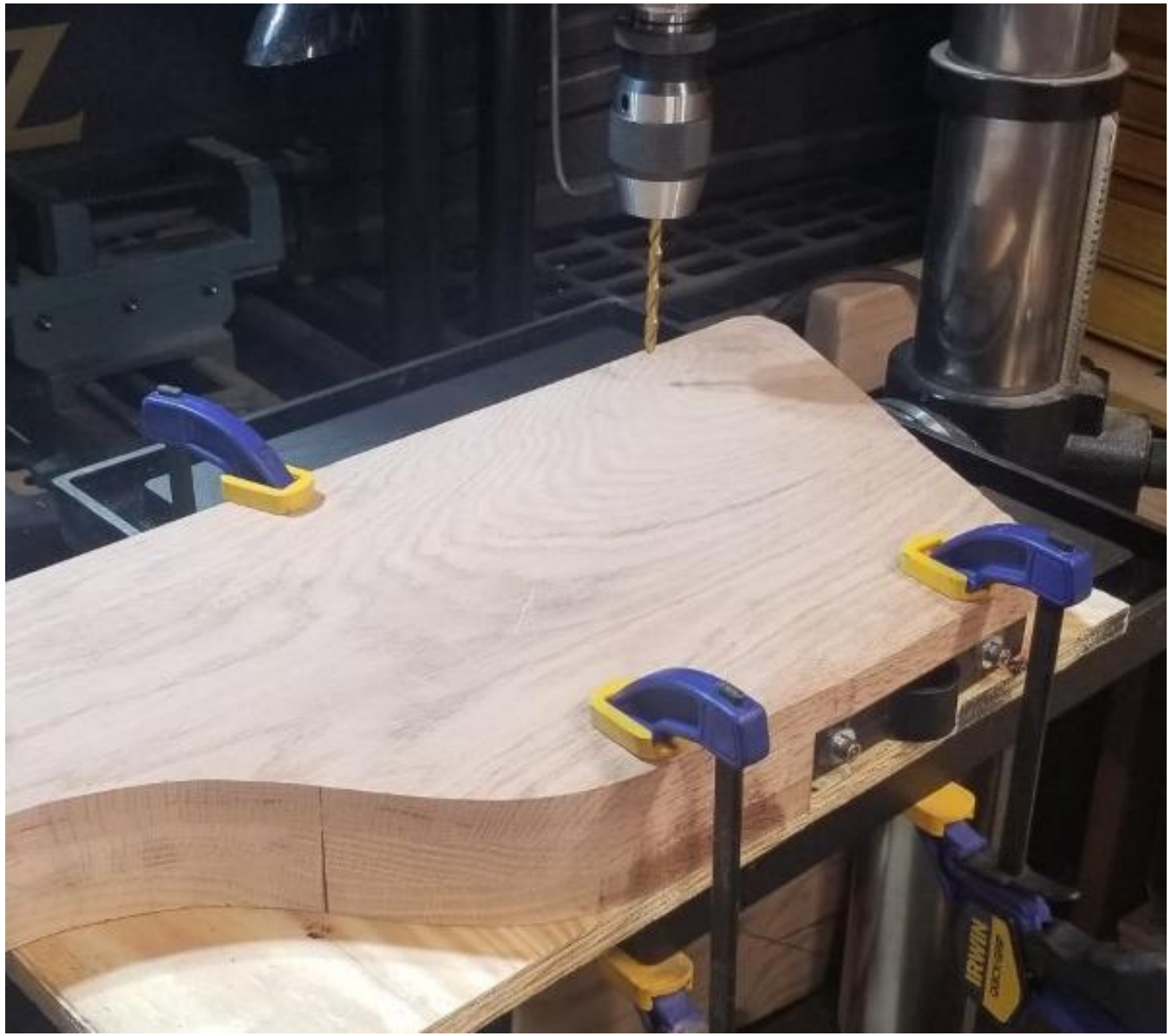


Sketch up of desired carriage shape. A battery style sloped front, and a “Sigmoid” curve for the back.

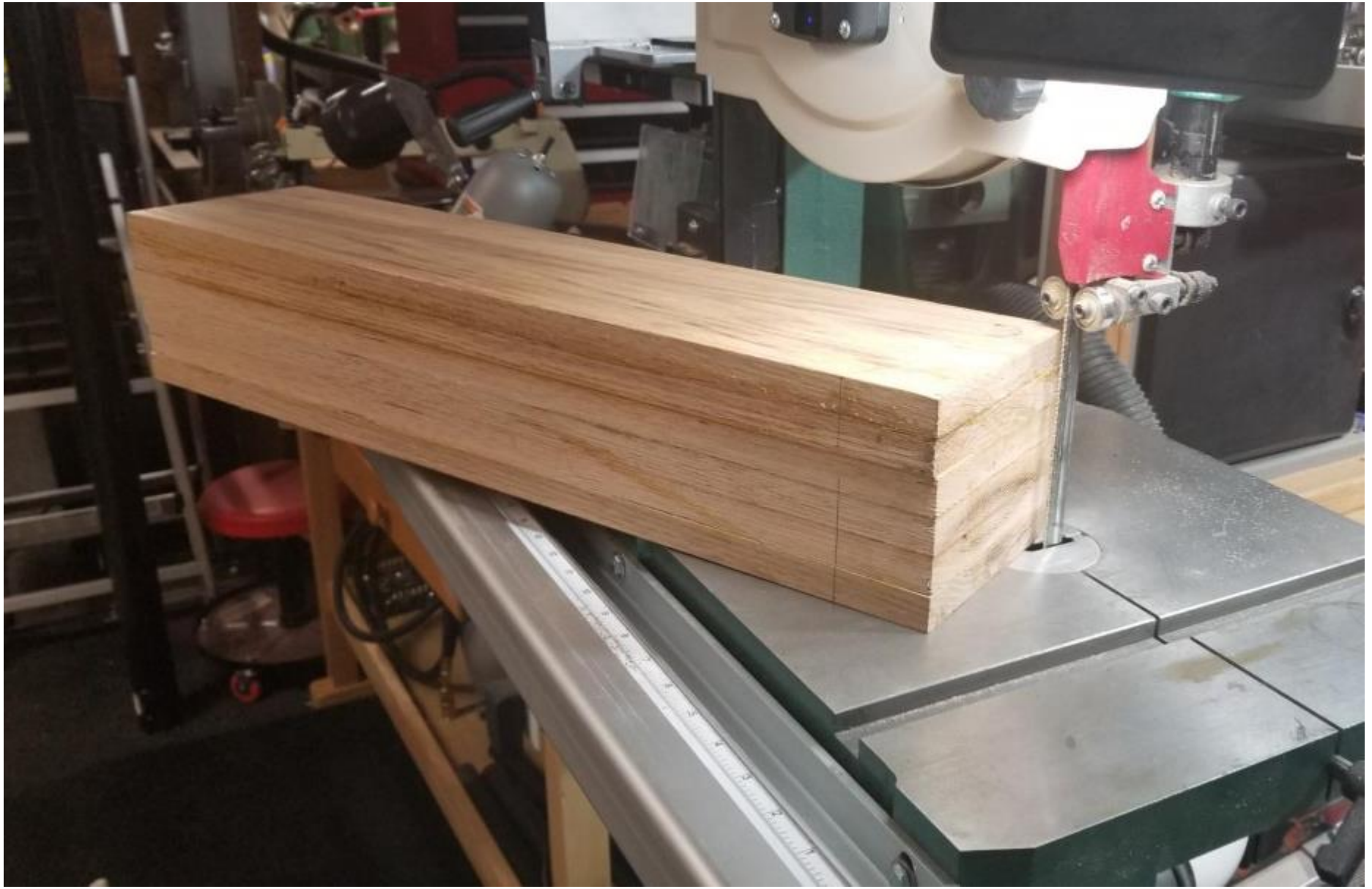
Ready for the bandsaw and oscillating sander!



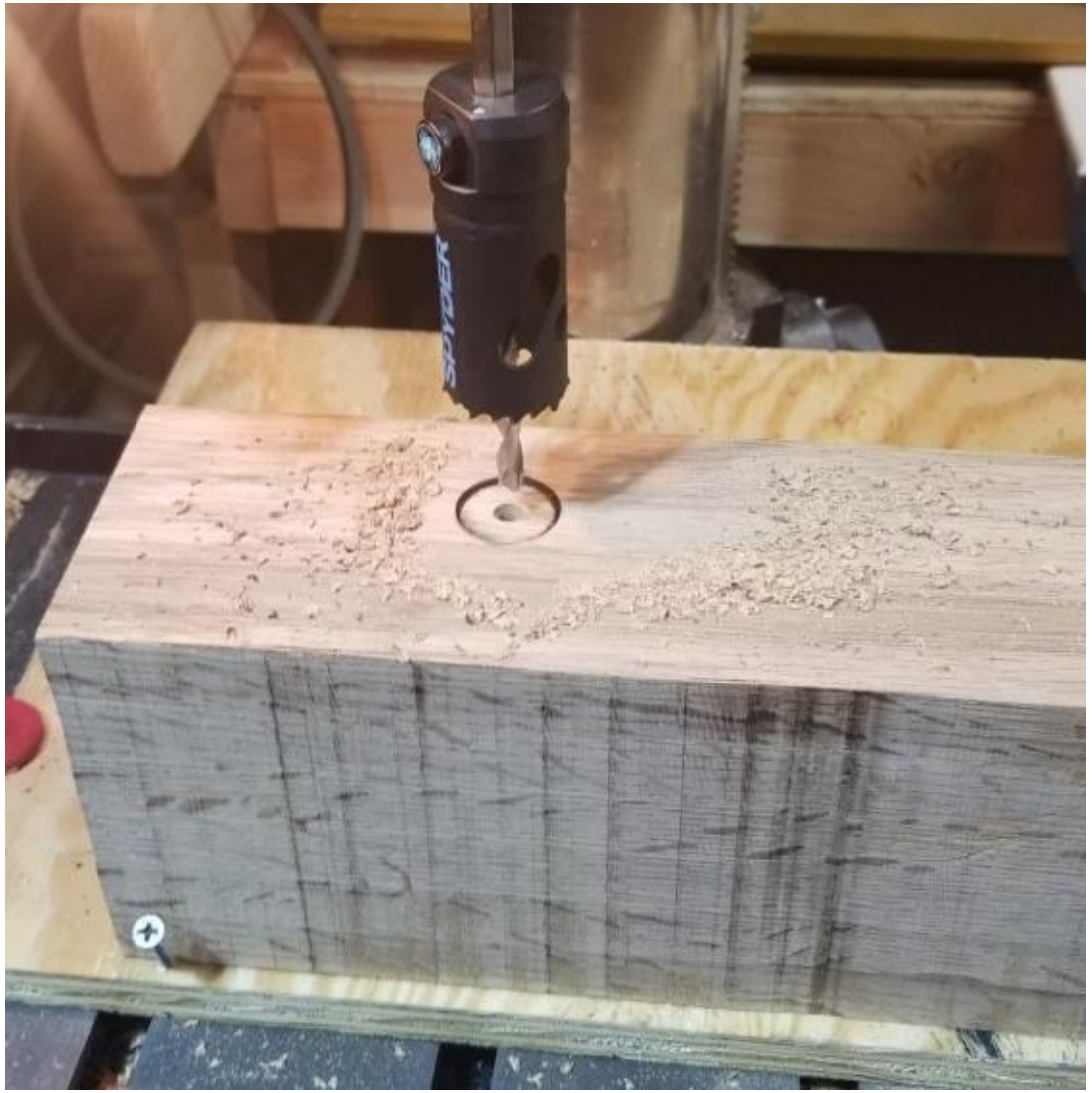
Happy with the way these turned out



Getting ready to drill holes for ½” threaded rod axles in sides.

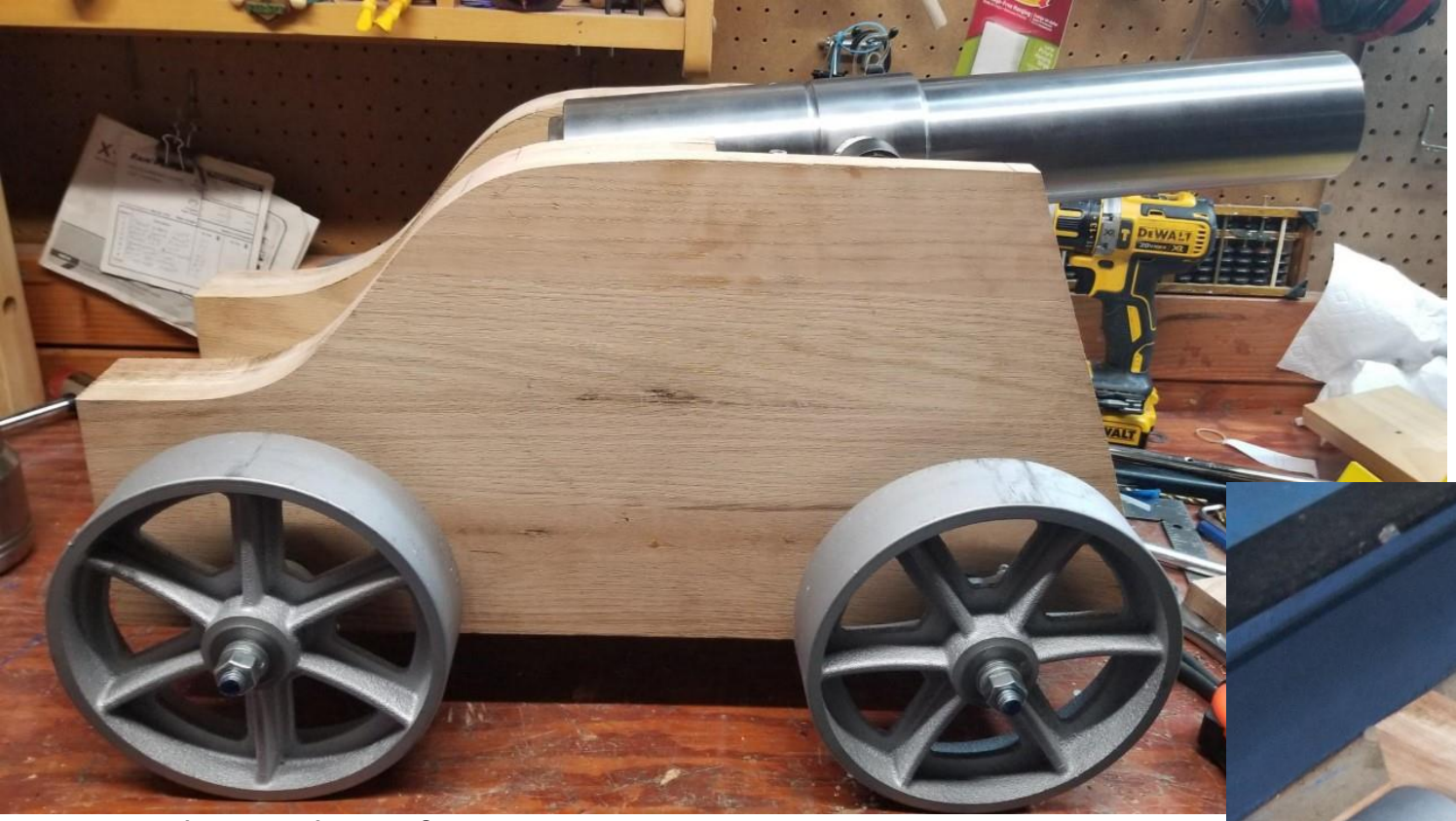


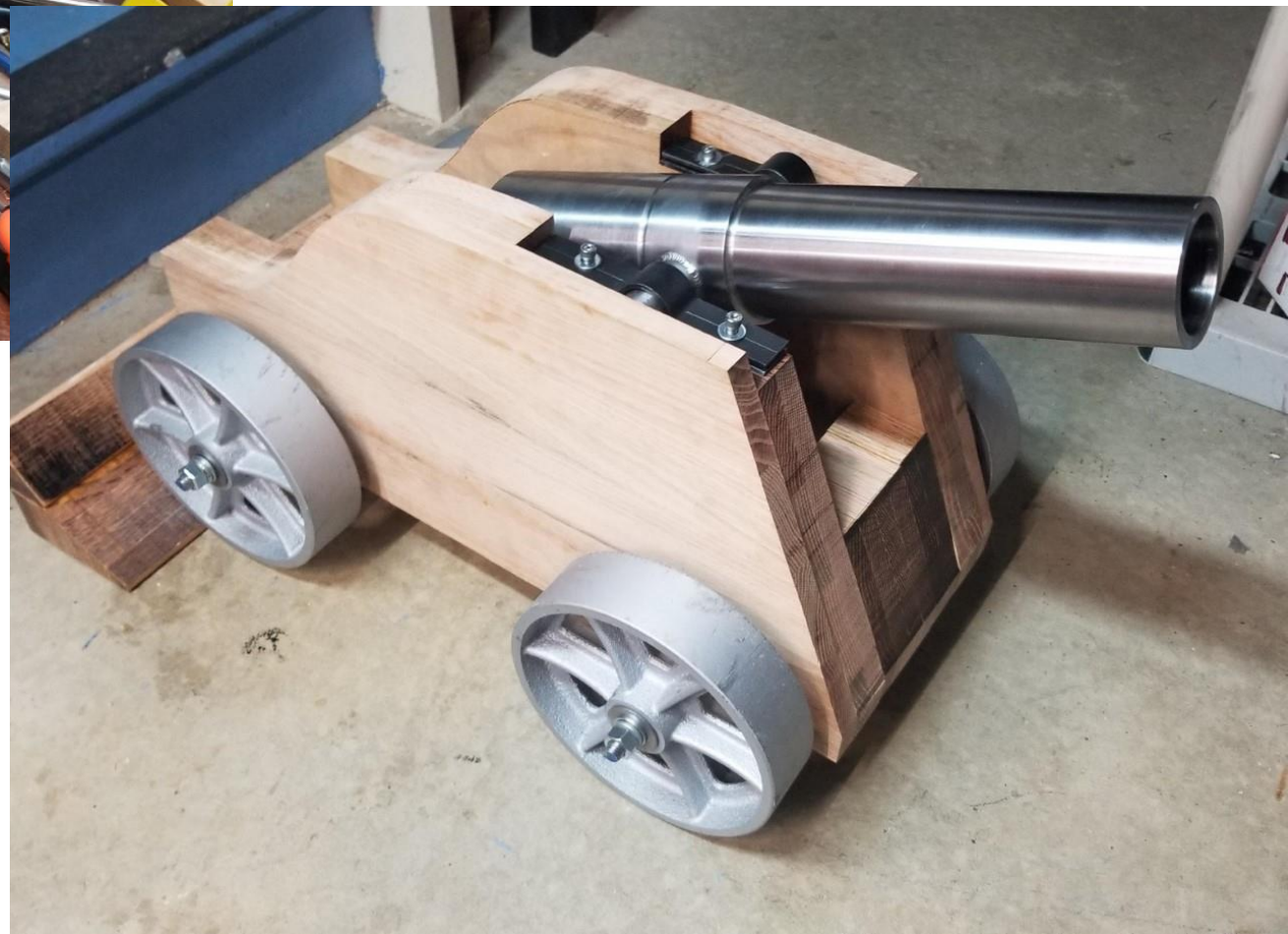
Cutting center section to match front slope and to reduce height in back for vertical swing.



1” clearance hole through center section to accommodate inevitable side-to-side misalignment and tight fit of axle rod through hole in each side. Turned out width was right at twice hole saw depth (whew!).

First real assembly!





Used wood cut from center section to create backstop (pivoting spike anchors on rear).
Assembled weight = 96 lbs

Now time for trim, edge routing, sanding, and a nice gunstock stain!

Considering blackening all the metal.
We'll see what it looks like finished first.